

ABSTRACT

An optical sensing device for detecting plural optical features of valuable papers is provided that comprises first and second photocouplers 5 and 6 or 9 and 10 positioned in the vicinity of and on the opposite sides of a passageway 13 for guiding the valuable paper 64. Each of first and second photocouplers 5 and 6 or 9 and 10 has a light emitting element 20, 22, 30, 32 for emitting a light, and a light receiving element 21, 23, 31, 33 for selectively receiving the light from the light emitting element 20 so that each light receiving element 21, 23, 31, 33 can receive lights reflected on and penetrating the valuable paper 64 for detection of multiple optical features from the valuable paper 64. Thus, the optical sensing device can derive plural optical scanning patterns by means of less number of light emitting and receiving elements to improve accuracy in valuable paper validation; can pick out optical patterns for different colors printed on valuable paper by means of plural lights of different wavelength irradiated on a same scan line or area on valuable paper; and can utilize inexpensive light emitting and receiving elements to reduce cost for manufacture.